CLAIMS

What is claimed is:

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An apparatus for modifying and feeding a liquid nutritional feeding composition comprising,

a chamber for receiving a beneficial agent for modifying a liquid nutritional feeding composition, the chamber having an inlet connectable to a container containing the nutritional feeding composition and an outlet connectable to a feeding means, and

- a pumping means associated with the chamber for pumping said nutritional feeding composition from the container into the chamber and back to the container for mixing the beneficial agent into the nutritional feeding composition.
- 2. An apparatus according to claim 1, wherein the volume of the chamber being alterable for pumping of the nutritional feeding composition.
- 3. An apparatus according to either claim 1 or 2, wherein the chamber comprises at least one flexible wall capable of being squeezed and released for pumping of the nutritional feeding composition.
- An apparatus according to any of claims 1 to 3, wherein the chamber comprises at least one beneficial agent selected from the group consisting of nutrients,
  probiotics, medicaments (and diagnostic agents) or a (physiological) combination thereof.
- 5. An apparatus according to any of claims 1 to 4, wherein the or each beneficial agent is dispersible in the nutritional feeding composition in less than 1 min.
  - 6. An apparatus according to any of claims 1 to 4, wherein the or each beneficial agent is dispersible in the nutritional feeding composition in less than 30 sec.





- 7. An apparatus according to any of claims 4 to 6, wherein the volume of beneficial agent constitutes from 30% to 50% of the volume of the chamber.
- 8. An apparatus according to any of claims 1 to 7, wherein the inlet is provided with a hollow spike for piercing of a port of the container and creating a fluid path for the nutritional feeding composition.
- 9. An apparatus according to any of claims 1 to 8, wherein the feeding means comprises a hollow spike for piercing the outlet of the chamber and creating a fluid path for the nutritional feeding composition with the beneficial agent.
  - 10. Use of an apparatus according to any of claims 1 to 9 for modifying and enterally supplying of liquid nutritional feeding composition.
- 20 11. Use of an apparatus according to any of claims 1 to 9 for modifying and incravenous supplying of liquid nutritional feeding composition.

12. A method for modifying and feeding a liquid nutritional feeding composition comprising,

connecting a chamber according to any of claims 1 to 2 to a container comprising a liquid nutritional feeding composition,

pumping liquid feeding composition into the chamber 30 and liquid nutritional feeding composition and beneficial agent back to the container to mix the nutritional feeding composition,

connecting the feeding means according to either claims 1 or 9, and

allowing the modified nutritional feeding composition to flow through the chamber into the feeding means.

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- 13. A method according to claim 12, wherein the flow from the container to and through the feeding tube means, is due to gravity.
- 5 14. A method according to claim 12, wherein the flow from the container to and through the feeding tube means, is assisted by a pump.

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